A THEORY OF INTERPERSONAL TRUST IN THE
COMMUNICATION OF SMALL TASK-ORIENTED GROUPS

by

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"To believe in something not yet
proved and to underwrite it with our
lives; it is the only way we can leave
the future open. Man surrounded by
facts, permitting himself no surmise,
no intuitive flash, no great hypothesis,
no risk is in a locked cell. Ignorance
cannot seal the mind and imagination
more surely. To find the point where
hypothesis and fact meet; the delicate
equilibrium between dream and reality;
the place where fantasy and earthy
things are metamorphosised into a work
of art; the hour when faith in the
future becomes knowledge of the past;
to lay down one's powers for others
in need; to shake off the old ordeal
and get ready for the new; to question,
knowing that never can the full answer
be found; to accept uncertainties
quietly, even our incomplete knowledge
of God: this is what man's journey is
about, I think."

(The previous paragraph is the last
passage of The Journey by Lillian Smith.)

CHAPTER I

INTRODUCTION

Let us imagine that we are members of a Marine fighting group in the jungles of Vietnam. We have a task to perform. Our group is composed of a radioman, a medic, a grenade launcher, and several riflemen. Each Marine, including the officer in charge, supplies the group with his own special training background and information. Varying conditions on missions call for decisions involving special items of information from each of the members. Does it appear that the amount of trust we have in each other might make a difference as we communicate these items of information and guide our actions accordingly?

Or, let us suppose that we are members of a college basketball team. Here, again, we belong to a task-oriented group. Each individual (guards, forwards, and center) has training and knowledge unique to his position and responsibility on the team. Spontaneous group decisions involving these special talents and items of information are frequently necessary. Does it seem that the amount of trust we have in each other might make a difference as we attempt to win basketball games?

Importance of the Problem

These examples illustrate ways in which interpersonal trust could plausibly contribute to, or deter, the work of a task-oriented group. It seems apparent that the study of interpersonal trust in communication is important. However, it has not received careful study. In the communications literature, trust has been given theoretical treatment, but few scholars in the behavioral sciences have attempted to study it in depth.

Intuition and casual observation support the contention that interpersonal trust is a significant factor in effective communication. Careful investigation seems warranted. Possible applications of such research appear to be numerous and important: communication between students and the instructor in educational training situations; communication in task groups in the armed forces and in industry; and communication in many diadic situations, such as doctor and patient, student and counsellor, parent and child.

The Problem

Before sophisticated, orderly scientific research can effectively be attempted, especially in a relatively unexplored area of study, two preliminary steps must be taken. First, the problem area must be clearly defined. The theories and conceptualizations, as well as the research procedures and experimental findings, of others must be

collected and evaluated. Second, a working theory, complete with
testable hypotheses, should evolve from the careful examination of
previous research efforts.

Robert T. Golembiewski (1962) mentions the existence of
these preliminary problems in his text The Small Group:

> It is necessary to isolate the dimensions of reality
> required to understand the relations which exist in
> the world. This is the process of conceptualization.
> In addition, it is necessary to develop ways of
> measuring the particular aspects of nature which are
> important to observe. This is the process of opera-
> tionalization. (p. 5)

After both conceptualization and operationalization have taken place,
the scientist can begin the actual observation of the behaviors in
which he is interested.

This research endeavor attempts to complete these two
preliminary steps in the problem area of interpersonal trust as it
relates to communication behavior. Thus, this is not an experimental
investigation of the role of interpersonal trust may play in the
communication of small task groups. Instead, it is an attempt to
conceptualize and operationalize the role of interpersonal trust in the
communication behavior of such groups. After this essential first work
has been completed, the job of testing hypotheses with controlled
observation should begin.

The problem involved in this research project is summarized
in the following questions:

(1) What is the most reasonable hypothetical explanation

of the functioning of interpersonal trust and its

effect upon the communication behaviors of members in small task-oriented groups?

(2) How can the scholar best test this theory through reliable and valid measurement?

Definitions

The problem in this study involves a theoretical treatment of the role of interpersonal trust in the communication behaviors of the small task-oriented group. For purposes of clarification, the following terms will be defined and discussed: trust, interpersonal trust, communication, and the small task-oriented group.

Trust

The term "trust" has been prominent in our vocabulary for years. However, the concept of trust is somewhat similar to Mark Twain's notion of the weather: everybody knows about it, but few people have studied it.

Trust has traditionally been thought of as a mystical and intangible factor, defying careful definition. Dictionary definitions describe the phenomenon in abstract terms such as: "confidence," "reliance," "expectation," and "hope." The American College Dictionary (1958) provides the following definition: "Reliance on the integrity, justice, etc. of a person, or on some quality or attribute of a thing: confidence." Webster's New World Dictionary (The World Publishing Company, 1960) speaks of the term as "firm belief or confidence in the

honesty, integrity, reliability, etc. of another person or thing."

Until recently, the discussion of trust and the recognition of its

existence, has been the extent of scientific interest in the concept.

Few efforts have been made to investigate the question of how it operates.

In his pioneering research on trust and suspicion, Morton

Deutsch (1958) noted the importance of trust to an understanding of

social life and personality development and indicated his view of the

current state of research on trust:

> Yet an examination of a half-dozen or more of the
> leading social psychology texts (e.g., texts by
> Cartwright and Zander, Homans, Krech and Crutch-
> field, Lewin, Lindsey, Newcomb) reveals that the
> word "trust" does not appear in any of their indexes.
> So far as we know, the research summarized in this
> paper represents the first attempt to investigate
> experimentally the phenomenon of trust. (p. 265)

Deutsch struggled with the problem of defining trust. He noted (1958)

that it involved more than predictability, although expectation was

involved. He also noted that risk or "motivational relevance" (something

invested) was requisite, and "when trust is not fulfilled, the trusting

individual will suffer an unpleasant consequence." (p. 265) Deutsch

defined trust in such a way that it captured some of the everyday usage

connotations and also permitted experimental research:

> An individual may be said to have trust in the
> occurrence of an event if he expects its occurrence
> and his expectations lead to behavior he perceives
> to have greater negative motivational consequences
> if the expectations are not confirmed than positive
> motivational consequences if they are confirmed. (p. 266)

To describe the behavior of a trusting person it appears to me that the following elements are essential:

(1) A person is <u>relying</u> upon something;

(2) This <u>something relied upon</u> may be am object, an event, or a person, including the trusting person himself;

(3) Something is <u>risked</u> by the trusting person;

(4) The trusting person <u>hopes to achieve some goal by</u> taking the risk;

(5) The desired <u>goal is hoped for, but not perceived as</u> certain;

(6) The trusting person has <u>at least a very small amount of confidence</u> in the object of his trust.

In view of these seemingly essential elements, this writer has adopted the following formal definition of trust: <u>reliance upon the characteristics of an object, the occurrence of am event, or the behavior of a person to achieve a desired but uncertaim objective in a situation involving risk</u>.

Inherent in this definition of trust is the concept of degrees of confidence in the trusted person or object. Zero confidence, i.e., <u>blind faith</u> in a totally unknown source of help, does mot seem to me to be trust, although blind faith in "lady luck" might well be the essential element of gambling. For this writer, the concept of trust implies at least some small degree of confidence in the object of the trust.

This concept of trust also implies at least a minimal degree of risk to the trusting person. This risk may be very small indeed-- perhaps only the possibility of a small loss of prestige, or maybe nothing more than a small amount of wasted time or energy. However, no matter how small, there is inherent in the concept of trust, as I visualize it, at least some element of risk.

In his analysis of the communication process, Newcomb (1953) describes the relationship between a person and the object or concept about which he is communicating as an "orientation." He defines "orientation" (pp. 149-50) as, ". . . equivalent to "attitude" in its more inclusive sense of referring to both cathectic and cognitive tendencies." In our conceptualization of trust the relationship between a trusting person and the object of his trust is viewed similarly as an "orientation," and thus as an "attitude" in this broad meaning of the term.

Both cathectic and cognitive behavior seem to be involved in the phenomenon of interpersonal trust. In their summary of experimental studies of group problem solving and group processes, Kelley and Thibaut (1954) imply this conclusion:

> In certain instances, the initiator (communicator) may be viewed instrumentally as a "mediator of fact" by virtue of his perceived expertness, credibility and trustworthiness. In other instances, the recipient may be motivated to agree with the initiator without regard for his "correctness"; agreement may become an independent motive. The strength of this motive seems to depend partly on the strength of positive attachment to and affection for the initiator. (p. 743)

This conclusion is reminiscent of Cecil Gibb's (1950) finding that something of value one individual has in the eyes of another, is already evident at the stage of a first impression. This impression is measurable, and its relationship to an enduring interpersonal attitude can be determined, even though the individual cannot easily account for the impression received.

An operational definition of trust is essential if we are to study it in a scientific manner; it must be defined in such a way that it can be measured. One must recognize, however, that trust, in part, is something inside a person's head. It may someday be measured directly by a neurologist or a biochemist, but since that is presently impossible, and indirect method of measurement is necessary. To measure trust we have to look elsewhere; we must look at what a person says or does.

We can ask a person if he trusts another person: we can do so in a rather sophisticated way--with a Likert scale or a semantic differential. The use of the semantic differential has been explored by Berlo (1961), Andersen (1961), Lemert (1963), and Markham (1965) to measure source credibility of public speakers. Two Kansas University graduate students, in conjunction with Dr. Kim Giffin, have investigated the use of a semantic differential and a Likert scale for measuring interpersonal trust in small task-oriented groups.

A second approach to the measurement of interpersonal trust involves the creation of a situation with two alternatives: one of the alternatives provides a possibility of achieving a desired

objective if a certain risk is run: the other alternative provides no risk and no possibility of gain. A person can then be allowed to make a choice between these two alternatives. When a person makes the "trusting choice" we can infer that he is actually trusting the other individual in that specific situation. This approach was explored by Deutsch (1958) and his students, Loomis (1958) and Solomon (1960). Recently the same approach has been made by Rapoport (1962b) and also by Roby and Carterette (1965).

By varying the degree of risk involved in "trusting choice" situations, we can infer comparative degrees of trust "in the mind of" the trusting person. Of course, such inferences must be made with care, for what may appear to be a "trusting choice", in fact, may be made from other motivations such as impulse, caprice, imitation, conformity, habit, ignorance, virtue, faith, masochism, or despair.

Communication

At this point, a definition of "communication" is in order. The definition advanced by Warren Weaver (1949) is central to our use of the term: ". . . used here in a very broad sense to include all of the procedures by which one's mind may affect another." (p. 95) The emphasis made by Colin Cherry (1957) is also in line with our usage: ". . . communication . . . is essentially the relationship set up by the transmission of stimuli and the evocation or responses." (p. 7)

In this study the term is used to mean the oral-aural-visual exchange of messages, including meaning conveyed by verbal and non-verbal symbols. Communication involves the entire individual as he talks, writes, reads or listens. It includes his social environment and the ways in which he relates to it through sending and receiving messages. It includes motivations, perceptions, cognitions and personalities of both message senders and receivers as they exchange ideas, along with the changes in both persons which are produced.

The student of the communication process asks this question: what kind of person says what to whom, for what purpose, in what way, under what conditions, with what effects? A rather complete theoretical treatment of these factors is given by David Berlo (1960) in his book, The Process of Communication.

The Small Group

The history of the study of "groups" could be written in terms of a series of concepts: society, primary group, reference group, membership group, and small group--from a higher-to-lower level of abstraction. As this process was occurring Newcomb (1951) noted: "The term 'group' . . . has achieved no standard meaning . . . ." (pp. 37-38) An acceptable definition of the term group is not easy; that of small group is more difficult.

The concept of boundary became crucial in the definition of "a group". "Membership" became the criterion of boundary. Thus, the

boundary was defined frequently in an obvious, sometimes elegant, tautology. In discussing this problem Golembiewski (1962) concluded: "The point is simply that the empirical determination of such "boundaries" and "membership roles" for different types of collectivities has been almost untouched." (p. 35)

There are three widely used definitions of small group. A large number of experimental or laboratory studies employ the definition developed by Robert F. Bales (1950): "a group is any number of persons engaged in a single face-to-face meeting or series of meetings in which each member receives some impression of each other member . . . . as an individual person, even though it be only to recall that the other was present." (p. 33) This definition seems to imply a limited number of persons but says little about their behavior. Thus it was rejected for use in this study.

The second definition, frequently used by researchers who work with natural "real life" groups, implies almost any collection of people. This usage neither specifies size nor behavior. For example, a study by Venable (1954) dealt with "a relatively stable group" of college students. This group consisted of forty-two girls taking the same academic course. George Homans (1950) not only used the term "group" to refer to a primitive tribe, a street gang, a roomful of factory workers, and a New England village, but produced inferences from the study of these "groups" in combination. Such a treatment seems to imply that "a group is a group," regardless of size or interpersonal

relationships. The studies using this loose definition frequently are very valuable. They typically deal with "real" (not laboratory-created) data. But research results obtained in studies using this definition must be carefully handled when comparisons are made with results from studies of other "groups."

The most common working definition of a small group today involves two factors (Golembiewski, 1962): (1) a small number of individuals in interdependent role relations who (2) have a set of values (norms) which regulate behavior of members in matters of concern to the group. (pp. 35-36) This definition relates to the size of the group and to the individual's behavior as it affects the behavior of the other individuals in the group. This definition seems, to me, to most clearly distinguish small groups from other forms of social organization. For this reason, it is accepted as the designation of a "small group" in this study. Neither of the other two common usages consider size or individual behavior within the group adequately.

A small group may exist for many reasons. It could be for the performance of some task. Thus, the definition of a "task-oriented" small group is: a small group having a specific problem or job to perform. This task is the primary goal of the group and the members are "oriented" toward completing their defined job.

Previous Research

It should be noted that previous research related to the problem area is not reviewed here. The synthesis and evaluation of the prior studies is a major part of this research effort, and these works are a part of the process of building a comprehensive theory of interpersonal trust in small task-oriented groups. For this reason, the previous research is considered in Chapter III.

CHAPTER II

THE NATURE OF BEHAVIORAL THEORY AND METHODOLOGY

The ultimate aim of all natural science is explanation and
understanding. (Marx, 1951, p. 5) The psychologist is interested in
understanding general human behavior; the student of speech communication
is concerned with understanding human communication behavior. Benton J.
Underwood (1957) contends that this is the primary goal of science:

> The purpose of the methods of science is to achieve
> a description and understanding of nature (the universe).
>
> By understanding I mean the reduction to the smallest
> possible number of general laws which would account
> for the various specific facts. The descriptive part
> of science is concerned with research per se; what I
> have called understanding is usually achieved through
> theory. (p. 1)

Some scholars assume that science's major objective is
prediction and control. Marx (1951, p. 5) contends that this
assumption is unfounded. The inability to predict or control events
does not prevent important scientific understanding of these events.
For example, Brown (Marx, 1951, p. 5) indicates that the inability to
predict or control earthquakes has not prevented the scientific
development of seismology. He further contends that the same situation
exists in the area of human behavior. Causes are often too obscure,
intricate, or inaccessible for exact prediction. Nevertheless, these
phenomena can be investigated and understood, at least in part. Hence
understanding, which is embodied in theory, is the ultimate aim of all

scientific theory. This principle applies to theory in the behavioral sciences as well as to theory in the natural sciences.

The Assumptions of Science

There are two basic assumptions that all scientists make when they adopt the philosophy that theory, or explanation and understanding, is their ultimate goal. The first assumption is that there is lawfulness in the events of nature as opposed to capricious, chaotic, or spontaneous occurrences. Every phenomenon is assumed to have a cause, and if that causal situation could be exactly reinstituted, the event would be duplicated. (Underwood, 1957, pp. 3-6)

The second general assumption made by the scientist is that every natural event has a discoverable and limited number of conditions or factors which are responsible for it. Science would be an almost hopeless undertaking if nature were so constituted that everything in it influenced everything else. (Underwood, 1957, pp. 3-6) All scientific theory is premised on these two assumptions.

Theory in Speech

We can approximate an understanding of speech by examining the elaboration of concepts or theories about the field. Because the boundaries of speech are unclear and the field of speech encompasses a large variety of activity, there are many types of theories in the speech discipline. This situation tends to make the idea of theory in speech

unclear. Bormann (1965) vividly points to this situation in his book

Theory and Research in the Communicative Arts:

> Speech is, in some respects, a clinical practice
> like medicine or psychiatry, a humanity like
> history or the classics; or a fine art like music,
> literature or painting.
>
> In the sciences theory means one thing, in fine
> arts it means something quite different . . . .
> The first step toward knowledge about speech is
> to understand the difference in various ways of
> structuring information and concepts. (p. 96)

Like theory in other behavioral sciences, theory in speech

communication focuses on human behavior. Psychology or social psychology

experimentally investigate questions of general human behavior, but may

focus on specific behaviors. In speech communication, we are interested

in the speech event. Perhaps our point of view is different or more

specific than that of other behavioral disciplines, but our investigatory

methods are the same. Using Bormann's classification we would conclude

that a theory of the role of interpersonal trust in small group

communication behavior would be similar to theories found in other

behavioral disciplines, such as psychology or social psychology.

(Bormann, 1965, p. 104)

Characteristics of Behavioral Theories

A general description of the characteristics of behavioral

theories may help the reader understand the specific techniques employed

in construction of this theory of interpersonal trust. If any theory is

to be an effective explanitory system, it must have the following
general elements: functional relationships, hypothetical constructs,
usefulness, bias, and comparability. The following paragraphs will
review each of these in turn.

Functional Relationships

Marx (1951, p. 6) indicates that since theory must aim at
explanation, functional relationships between variables must be
established in a theory. These relationships are descriptive statements
or propositions at varying levels of abstraction and comprehensiveness.
In order to meet this requirement, the theory of interpersonal trust
must explain the occurrence of trust between individuals by describing
the relevant variables which lead to trust formation. The relationships
which exist between these variables must also be established.

Hypothetical Constructs

In part, the functional relationships found in behavioral
theories are established through empirical measurement. An impressive
array of highly reliable and useful scientific knowledge has been
accumulated through direct empirical measurement. However, it is not
always possible to answer scientific questions simply by means of direct
observation and measurement. Many phenomena are too remotely and too
tenuously related to the immediately observable variables to permit so
direct an approach. Marx (1951, p. 4) contends that for this reason,

"modern natural sciences have developed a large number of theories

which are ultimately based upon but which are not entirely reducible

to bare empirical measurements." Thus, theory in the behavioral sciences

consists of guesses as to how the uncontrolled or unknown factors in a

system are related to experimentally known variables. (Bormann, 1965, p. 102)

Spence (1944) illustrates this characteristic of behavioral

science theory by noting the basic differences between theory in the

physical and behavioral sciences:

> In some areas, theories serve primarily to bring
> into functional connection with one another
> empirical laws which prior to their formulation
> had been isolated realms of knowledge. An example
> of such an area would be physics.
>
> In behavior sciences, variables in a simple
> experiment are so numerous that their empirical
> relationships cannot be ascertained. Theories
> are brought into play to aid in the formulation
> of laws. They consist primarily in the intro-
> duction or postulation of hypothetical constructs
> which help to bridge gaps between experimental
> variables. (p. 48)

The functional relationships which are derived through

experimentation are often called empirical constructs. Those relation-

ships resulting from the intuitive guesses of the theorist are called

hypothetical constructs. (Bormann, 1965, pp. 102-103) The theory of

interpersonal trust contains these hypothetical constructs.

Usefulness

Theories can also be characterized by their use, since they

are employed as both tools and objectives which have been reached. When

used as a tool, a theory points to new avenues of research and helps

generate new hypotheses. In this way theories are regarded as provisional explanations, the value of which may be determined by empirical investigation. (Marx, 1951, p. 6)

Often a theory is widely accepted as a valid explanation. It is then regarded as an objective which has been reached. (Marx, 1951, p. 6) These reached objectives or accepted theories are employed to interpret or evaluate other theories or facts.

Since the study of trust is in its infancy, we would expect any theory about this phenomenon to function primarily as a tool. The theory embodied in this study should be regarded first as a tentative description and explanation which provides guidelines for future experimental investigation. If future research verifies the truth of this explanation, the theory of trust would then function as a reached objective.

Bias

All theories are relative to bias. The first source of theoretical bias comes from the theorist when he interprets and evaluates previous research and when he establishes hypothetical constructs in those areas where experimental evidence does not describe important relationships. The bias of the various observers upon whose empirical reports the theorist has depended provides the second major source of bias. Some bias is inevitable in all theory. An awareness of the existence of this theoretical bias, particularly on the part of the theorist, can help reduce it to a minimum. (Marx, 1951, pp. 6-7)

Comparability

Alternative theoretical approaches can be directly compared scientifically only if they make different predictions within the same observational framework. (Marx, 1951, p. 7) For example, when compared to Deutsch's theory of interpersonal trust, the theory in this study uses the same measuring techniques, but makes different predictions, a scientific comparison of the two theories could be made. However, if different observational frameworks are used, such a comparison would be impossible.

Methodology

The remaining chapters of this study develop a theory of interpersonal trust in small group communication. The specific method used in construction of the theory is outlined below.

How does one develop a theory? There appears to be two basic approaches to theory construction. In the first approach, theory is developed through the planning and carrying out of coordinated systematic research. The Yale Communication Research Program provides an example of this approach. (Selltiz, et al., 1961, p. 494)

The second approach to theory construction builds theory on the basis of existing studies. For instance, the theory of reference group behavior by Merton and Rossi (1957), uses as its material numerous researches in the American Soldier. (Stouffer, et al., 1949) This approach aims at development of three types of verbal statements or propositions. (Marx, 1951, p. 7) The propositions and the steps used in arriving at them are outlined below.

Empirical Propositions

Empirical statements are propositions of "fact" of what has been observed. (Marx, 1951, p. 7) The theorist examines these propositions found in previous studies in order to understand and conceptualize the phenomenon in which he is interested.

All known, available scientific studies relating directly to interpersonal trust were collected and reviewed in an attempt to understand what is already known about trust. Other studies, not directly concerned with trust, were also considered when it appeared to the writer that the concepts with which they deal seem to be related to the problem under consideration. Such an examination of related research can be fruitful to the theorist. For example, the American Soldier studies were not planned in terms of the Merton and Rossi concept of a reference-group, yet these scholars interpreted a number of the studies that were concerned with morale and satisfaction in these terms. (Selltiz, et al., 1961, p. 493) Hence, the theory of trust is grounded in a consideration of the evidence pertaining directly to interpersonal trust and to factual data in such related areas as source credibility, hostility and aggression, stagefright, and psychoanalysis. All of the existing studies upon which the present research is based are on file at the Communication Research Center at the University of Kansas.

Theoretical Propositions

Theoretical propositions are more or less general statements of varying degrees of abstractness and comprehensiveness concerning functional relations among variables. (Marx, 1951, p. 7) How does the theorist arrive at theoretical propositions? Many of the variables and their relations with other variables are already known. These are found in the previous studies. When examining these pieces of research, the theorist becomes aware of their existence. This, then, is the theorist's first source of theoretical propositions.

However, frequently either the experimental data is conflicting or there is no evidence concerning potential variables and their possible relations to known variables. In these cases the facts are not known. Thus, the theorist guesses as to the unknown variables that relate to empirical data in such a way as to make the results meaningful. (Bormann, 1965, pp. 116-117)

The theorist's guesses can be educated ones. At times the theorist not only can rely on his own reasoning, but also can detect relations between variables in some of the studies he reads. Although these studies may not provide factual evidence regarding unknown variables, by inference they can point to plausible variables and the relations between them.

Some of the theorist's best sources of non-factual information are the normative theories of others. A normative theory, which explains how things ought to be rather than how things probably are, as in scientific theory, can point to possible unknown variables. By

examining these theories, the theorist benefits from the armchair speculations of others who may have great insight into the problem. Many such theorists have concerned themselves with the phenomenon of trust. Therefore, it seemed appropriate for this writer to consult the works of the classical rhetoricians and the contemporary rhetorical scholars. Some of the variables included in the theory of trust have been suggested by these writers. Credit is given to these scholars each time such a variable is included in the theory.

Hypothetical Statements

Hypothetical propositions are statements of supposition or conjecture of what is predicted in observation. (Marx, 1951, p. 7) This type of verbal proposition forms the link between empirical propositions and theories. The implications of a theory can be tested only by means of specific predictions or experimental hypotheses. Without hypotheses, confirmation or rejection of theories would be impossible. Chapter IV contains a list of specific hypotheses developed for the testing of the theory of interpersonal trust. These hypothetical propositions deal with the variables outlined in the theory. The listing is not meant to be comprehensive. Instead, it is included to provide guidelines for future experimentation. Many of the variables and relationships between them, which are outlined in the theory, are not considered in this list of hypothetical statements. Other researchers can formulate the hypotheses necessary to the testing of these parts of the theory. However, the hypotheses included are ones that can now be tested.

Furthermore, it is believed that our knowledge of interpersonal trust and its role in the communication behavior of small groups will accumulate faster if the included hypotheses are tested before other or less significant hypotheses are considered.

Theory Evaluation

How does one evaluate the worth of a theory? One way of determining a theory's validity is to discover through experimentation how well it explains the phenomenon it purports to explain. Since this is the only scientific method of theory validation, it takes time. Until such experimentation occurs, the reader can rely on other methods of evaluation. One such method is suggested by Leon Festinger in his theory of social comparison process. (1954, p. 163) With this method, behaviorial theories are frequently viewed in terms of how "plausible" they seem. Plausibility usually means whether or not the theory fits one's intuition or common sense. Everett E. Hagen, author of On A Theory of Social Change (1962) offers the same suggestion:

> A theory . . . is to be accepted not in some
> absolute sense but only because it seems to
> provide a more comprehensive, accurate, and
> logically simple explanation of the facts of
> life than an alternative theory. (p. 19)

It is hoped that those who read this study will apply the above criterion in evaluating the theory of interpersonal trust.

Behavioral theories that do not seem plausible to other behavioral scientists are usually never tested. One distinct characteristic of poor theories is that they never seem to be used. Michael Polanyi (1958) makes this evident in his book Personal Knowledge:

> . . . a scientist must commit himself in respect to
> any important claim put forward within his field of
> knowledge. If he ignores the claim he does in fact
> imply that he believes it to be unfounded. If he
> takes notice of it, the time and attention which he
> diverts to its examination and the extent to which
> he takes account of it in guiding his own investi-
> gations are a measure of the likelihood he ascribes
> to its validity. Only if a claim lies totally
> outside his range of responsible interests can the
> scientist assume an attitude of completely impartial
> doubt towards it. He can be strictly agnostic only
> on subjects of which he knows little and cares
> nothing. (p. 276)

It is suggested that the reader ask two specific questions in determining the plausibility of the theory of trust. First, do the outcomes the theory would lead one to expect coincide closely with outcomes so far observed? Second, do the component elements of the theory coincide closely with principles that have been verified independently? If the answer to both questions is "yes," one may hope that the theory will also predict future outcomes. (Hagen, 1962, p. 19)

Summary

In summary, the ultimate aim of natural science is understanding. This understanding is achieved through the explanation found in theory. Speech communication theory is similar to theory in other behavioral sciences.

Our theory of interpersonal trust will try to explain the phenomenon of trust by establishing functional relationships between variables. It makes use of hypothetical constructs and should be regarded as a provisional explanation. Of necessity the theory will contain bias. And, as an explanatory system, it can be compared to other theories only

under certain, specific circumstances.

The theory of trust is based on an examination of existing studies, related both directly and indirectly to the phenomenon of trust. It aims at establishing empirical, theoretical, and hypothetical propositions by examining the facts, guessing the unknown variables and their relations with known variables, and constructing specific, testable statements that link the theoretical to the factual propositions.

CHAPTER III

A THEORY OF INTERPERSONAL TRUST IN SMALL GROUP COMMUNICATION

Our conceptualization attempts to explain the existence of
trust in small group communication behavior by asking two basic questions.
The first question this writer is asking is: why do individuals tend
to trust or distrust each other?

Interpersonal trust can be viewed as a dependent variable.
The theory outlined in this paper attempts to view trust in this context.
By doing so, another important question is posed: what are the communi-
cation factors which influence interpersonal trust and distrust, and
how are these factors related?

It is hoped that both of these questions are answered in the
following pages of this study. When each is answered, the theory will
be complete.

The Basis of Interpersonal Trust

It is essential that we distinguish between trusting
behaviors and attitudes of trust. Trusting behavior is explained in
our formal definition of trust: reliance upon the behavior of another
person to help achieve a desired but uncertain objective in a situation
involving risk. Trusting behavior requires the actual reliance upon
another's behavior.

An attitude of trust is a predisposition to rely on the
behavior of another person in any risky situation in order to achieve a

desired but uncertain objective. As was indicated earlier, attitude is here considered broadly. This view of attitude involves both cognitive and cathectic (emotional) behaviors.

We would assume that a trusting attitude would precede trusting behavior in a rational organism. This assumption is incorporated in the present theory. Our first question is partially answered: men trust and distrust each other because they are predisposed to do so.

Although the above reasoning accounts for the existence of trust and distrust in human behavior, it does not explain why or how such attitudes are formed.

The Need-Satisfaction-Frustration Model

There are many theoretical explanations as to why and how people generally form various interpersonal and self-evaluations. Although all the theories of attitude formation and change are not reviewed here, it is important to note that the theory of interpersonal trust supports two types of major theoretical constructs which are often employed to explain the development of interpersonal attitudes. The major elements of these two models and their applicability to our theory are outlined.

The first basic approach is commonly called the need-satisfaction and need-frustration model. This type of explanation is the prevailing conceptual approach in the investigation of human attraction and hostility. (Pepitone, 1964, p. 222) According to this

theory, the attractiveness of another person is a function of the need-satisfaction which that person brings about. Hostility toward another person occurs when an individual imposes need-frustration. The attractiveness of the self is also interpreted in terms of this model. For example, if the self is a source of need-satisfaction, it is liked. With this concept the attraction of a group for its members (group cohesiveness) is a function of the need-satisfaction which the group is able to bring about. (Pepitone, 1964, p. 222)

In order to predict changes in attraction and hostility in a given situation, one must know which needs are operating and which behaviors and conditions satisfy or frustrate these needs. Attempts to test the need-satisfaction-frustration model have been made using status and security motives as possible determinants of attraction and hostility. The reasoning behind this experimentation is: the greater the reduction in the threat of status (or security) loss which another person brings about, the more attractive this person becomes to the individual. Hostile attitudes toward another person are based upon how much he threatens the individual with the loss of status (or security). Substantial experimentation has provided a wealth of evidence to support these theories of attraction and hostility. (Pepitone, 1964, pp. 6-25)

If the need-satisfaction-frustration model correctly explains how man evaluates himself and others, it could probably be used as an explanation of how attitudes of trust and distrust are formed. We could then assume that the attitude of trust an individual has toward another person is a function of the need-satisfaction which that person is

thought to be able to bring about. Attitudes of distrust toward another

person occur when that person is perceived as capable of producing and

likely to impose need frustration. In order to predict changes in

attitudes of trust or distrust with this model we would need to know

which needs are operating and which behaviors and conditions satisfy or

frustrate these needs.

The attitudes of trust and distrust are indeed grounded in

the perceived likelihood that others will either satisfy or frustrate

basic needs is one of Erikson's (1950) major theoretical hypotheses.

Erikson labels the first of his eight stages of man as "Trust and Basic

Distrust." He suggests that the central psychosocial problem in the

period of baby hood is to what degree the baby acquires a sense of

mistrust. Erikson suggests that this sense is acquired in the following

way.

At times the baby has to feel a need more intensly than at

others in order for its satisfaction to occur, and at times he has to

cry out. He learns in greater or lesser degree that the connection

between his initiative and satisfactory response to it is not automatic

or certain. But the degree to which this is true varies greatly for

different children, and from the degree the infant learns an important

lesson. He either typically faces a problem (for example, hunger),

attacks it (stirs or cries out), and solves it (nourishment appears

within a reasonable period of time), or he faces it and lies in pain and

anxiety during a period of time in which he fails to find a solution.

(Perhaps his mother is too busy to feed him or thinks that waiting will

teach him good habits.) Either he can depend on his initiative, the response being safe, dependable, comforting; or he cannot, and gains a sense that initiative is not followed by dependable response.

That the baby shall come to trust his ability to obtain a satisfactory response from the world requires not merely that his physiological needs shall be met dependably but also that their relief shall be accomplished in a manner that is comforting, reassuring, and loving. From his mother's confident, smooth movements, caressing touches, relaxed muscles, and easy and caressing voice he gains a feeling that the world is a secure place. Insofar as he is fussed over needlessly by an anxious mother, or handled abruptly by an impatient or irritated mother, or handled by a mother whose main interest at the time is else-where--in a conversation she is carrying on or her complexion--he learns that the world does not respond to him, even though his physiological care is adequate. If he is to trust, he must gain the perception that his environment, at this stage almost wholly his mother, is trustworthy.

The infant's first social achievement is his willingness to allow his mother out of his sight without undue anxiety or rage. The mother has become an inner certainty as well as an outer consistency. It is from the outer consistency that the infant builds his feelings of trust in others. He trusts that his mother will return and meet his needs. This inner sense of trust also includes that one is trustworthy enough to be worthy of consistent and trustworthy behaviors on the part of others.

For no baby are the responses of his environment to his urges entirely dependable. Even in the most favorable of environments a pin

will prick, colic will develop, a finger will be cut, and so on.
Inevitably during the teething period every child will experience
pain for which he sees no cause and will feel that the world is
arbitrary and hostile. The cases of general happy trust in one's
relationship to one's world and of pervading anxiety are extremes of
a continuum. In Erikson's explanation, the infant gains a balance of
trust and mistrust.

The behaviors involved in the need-satisfaction-frustration
model, and Erikson's interpretation of their babyhood origins, have
been adopted as a fundamental part of the theory of interpersonal trust.
To this writer's knowledge, there is no experimental evidence supporting
the preceeding highly abstract conceptualization. Hence, what is
presented in the above paragraphs is speculative. Nevertheless, it is
believed to be the most reasonable explanation of why humans by their
very nature hold attitudes of trust and distrust.

As our formal definition assumes, perceived elements of
risk are essential in trusting situations. The need-satisfaction-
frustration model accounts for the uncertainty which occurs in human
interaction. Because individual initiative is potentially incapable of
leading to need satisfaction, as the model assumes, one is forced to
frequently rely on others for such satisfactions. Through past experience
the individual has learned that other people are undependable at times.
Hence, when seeking dependable rewards, the person is motivated to discover
those individuals most likely to provide such rewards. Then a risky
situation exists whenever one person evaluates another in order to obtain
need satisfaction.

General Predispositions

Erikson's need-satisfaction-frustration model is capable of explaining the existence of varying general predispositions to trust or distrust others in individual and group behavior. Since the model explains the formation of interpersonal trust as a behavior learned in childhood, it is capable of demonstrating why some individuals tend to be more trusting in their interactions with others, and why other individuals generally tend to distrust those people around them. To my knowledge, there is no experimental evidence regarding the existence of general predispositions to trust or distrust in normal individuals. However, it is suggested that these predispositions do exist.

The mental disorder called paranoia is characterized by systemitized delusions, especially delusions concerning persecution. The paranoid often distrusts most people around him. His general level of distrust is so great that he may be incapable of normal societal activity. It is not here implied that the causes of paranoia are the same as the causes of trust and distrust in the normal individual. However, it is suggested that the existence of a high degree of suspicion in paranoia is analogous to the existence of general tendencies of varying degrees to trust or to distrust others in normal persons.

Common sense reasoning adds strength to the above logic. Most of us know individuals who, because of their great tendencies to trust others, are often taken advantage of by those with whom they associate. On the other hand, we also know people who generally tend to distrust and suspect most of the individuals they know. Of course

these two types are extremes on a continuum.

Giffin's (1966c) theoretical work on stagefright and intrapersonal trust indicates that some individuals (those suffering from stagefright) generally tend not to trust themselves, and as a result do not trust their listeners in communication situations. Although Giffin's work on intrapersonal trust will not be reviewed here in detail, it does lend credibility to the suggestion that general predispositions to trust or to distrust, in fact, do exist.

Cultural Predispositions

If, as Erikson's explanation indicates, child-rearing techniques can cause the individual to gain a general balance of trust and mistrust (a general predisposition to trust or distrust others), it seems possible that different cultures, with their varying approaches to child care and rearing, could exhibit different amounts of trust and distrust in their interpersonal relationships. For example, Elton B. McNiel (1965), tells of a society with an unusually high degree of interpersonal distrust, and traces this phenomenon to adult behavior during childhood years. He says:

> Among the Pueblo Indians, the Hopi are a society based on a notable maladjustment of its people; maladjustment in the sense of a state in which continued friction predominates in personal relations and in which the worst is regularly and anxiously anticipated. Gossip, witchcraft, fear, discord, and mutual distrust pervade the daily interactions of the tribal members. In part, the antagonistic attitudes of the adults can be traced to the sharp and consistent restriction of the overt expression of aggression by the child after an earlier period in which his aggressiveness was a successful and rewarding way of behaving. (p. 34)

The previous concept is incorporated into the present theory: cultures and societies exhibit varying general levels of trust and distrust in their interpersonal relationships.

Summary

Let us briefly summarize the theory of interpersonal trust as it has been developed thus far. It is suggested that:

(1) The individual attempts to maximize the satisfaction and minimize the frustration of his needs.

(2) This can often be accomplished only through the reliance upon others who are undependable at times.

(3) Because of the inherent risk involved in satisfying his needs, the individual is motivated to evaluate the probability that other persons will be dependable sources of rewards.

(4) Interpersonal attitudes of trust and distrust basically evolve from the individual's desire to reduce the risk involved in either satisfying his needs or preventing their frustration.

(5) These behaviors are first learned during the period of childhood.

(6) The individual has a predisposition of a certain degree to either trust or distrust others.

(7) Cultures and societies can exhibit different degrees of trust and distrust in interpersonal relationships.

The Cognitive-Validation Model

The second major conceptualization of attitude formation and change, adopted for use in the theory of interpersonal trust, is suggested by Albert Pepitone (1964). This model involves a purely cognitive explanation of interpersonal evaluation. Pepitone assumes the existence of a "validation" motive--a need of the individual to maintain a cognitive structure which correctly maps physical or social reality concerning the value of himself and others along some dimension.

Pepitone's conceptualization indicates that whenever an estimate of an individual's own or another person's worth deviates from estimates of an objective valuation in a given respect, the individual will tend to change his cognitive structure so that such valuations are more in line with reality. Pepitone emphasizes that the cognitive-validation construct has been highly useful in interpreting a large variety of social behaviors:

> Experiments on opinion conformity, conformity in making judgments about physical stimuli, persistence in setting of aspiration, formation of competitive coalitions, and affiliation preferences all yield data which can be interpreted in terms of a cognitive validation process. (p. 223)

The following example indicates how the cognitive-validation-motive theory could explain the existence of positive and negative interpersonal attitudes. When an individual interacts with a boastful person (a person whose estimate of his own worth exceeds a valid estimate as perceived by those around him), the individual may be expected to

develop a negative (hostile) attitude toward the boastful person. This change of attitude would occur through the validation tendency. In the above example, the individual validated his cognitions of the worth of the boastful person according to the opinions of those around that person. In this case, the dimension used for validation was majority opinion.

Other scholars have also contended that such a validation process operates. For example, in a classic essay of modern times, Festinger (1950) set forth a theory of the need to validate one's understanding of reality (the world about us) by checking with other people. He identified a continuum on which he placed at one end "physical reality" and on the other end "social reality." Physical reality was said to involve such things as surfaces or objects, the perception of which an individual can validate with his physiological senses. Social reality was said to involve perceptions of such things as appropriate social behavior, judgments of a moral or ethical nature, those elements of "reality" which we usually associate with attitudes, opinions or beliefs. An opinion, attitude or belief was said to be perceived by the individual as valid to the extent it was anchored in (or reflected by) an approved reference group. For example, the validation of one's perception of himself as an "adequate communicator" would partly require feedback from other people. The less "physical" reality involved in an opinion or judgment, the greater the need of communication from a reference group. In a later paper Festinger (1954) further developed this theory.

The idea of a need to validate one's perception of reality was not new with Festinger. Cooley (1909) and Mead (1934) had argued

the point. In fact, their approach has become a traditional viewpoint frequently employed to describe the basis of social psychology--the thesis that man's impressions of his mind, self, and consciousness emerges as internalizations of concepts evolved from social interaction. Thus man needs to communicate to verify his views of himself and his world.

It seems that we could also interpret the existence of positive and negative attitudes in the area of trust by using the same reasoning. We could say that an individual may form an attitude of distrust for another person because he sees that in potential future situations, as inferred by past or present situational and behavioral criteria, that that person's behavior cannot be relied upon.

However, it is suggested that dimensions other than reference group or majority opinion are also used by the individual to validate his cognitions regarding the trustworthiness of others. When faced with the decision to trust or distrust, the opinions of others are frequently unknown or impossible to determine in many social situations. Yet attitudes of trust and distrust are probably formed by the individuals involved in such situations. Other dimensions seem to be used by the individuals involved in such situations, when validating their attitudes regarding the trustworthiness of others. These dimensions and the evidence regarding them are outlined in our consideration of the communication factors which influence interpersonal trust and distrust.

Our adaptation of Pepitone's cognitive-validation model suggests that trusting and distrusting attitudes occur when the individual validates his cognitions regarding reality according to some dimension in situations involving risk.

The need-satisfaction-frustration model and the cognitive-validation model are complimentary explanatory systems. Both explanations suggest that the individual is motivated to appraise other people. The need-satisfaction-frustration model emphasizes the reason for this tendency: to achieve need satisfaction and avoid need frustration. The cognitive-validation-motive model focuses on the general process involved in the formation of these interpersonal attitudes: the validation of cognitions regarding reality according to some dimension.

Attitudes of trust and distrust are arrived at through a process of cognitive validation is purely speculative. To the knowledge of this writer, no experimental evidence regarding the existence or influence of such a process exists in the area of interpersonal trust. Our integration of the cognitive-validation concept into the theory of interpersonal trust can be summarized in the following statement:

> (8) The individual, in his desire to satisfy his needs
> and prevent their frustration, tends to validate his
> cognitions regarding the trustworthiness of others
> according to certain dimensions.

It is hoped that the previous parts of this theory will seem more logical and reasonable after the reader has considered the dimensions used by the individual in validating his cognitions regarding the value of himself and others.

The Dimensions of Interpersonal Trust in Communication

The factors which directly influence interpersonal trust in small-group communication appear to be the listener's perception of these characteristics of the speaker:

(1) Expertness relevant to the topic under discussion may be in the form of quantity of pertinent information, degree of ability or skill, or validity of judgment.

(2) Reliability as an information source may be perceived as dependability, predictability, or consistency.

(3) Intentions toward the trusting person may be perceived by him as favorable.

(4) Activeness of the speaker or his communication behavior which appears to be more active than passive may be perceived by the listener.

(5) Personal Attraction of the speaker for the listener, a dimension difficult to measure, possibly non-rational or non-cognitive, may be operating without conscious perception by the listener and without his knowledge of interaction with one or more of the four factors listed above.

(6) Majority opinion of the others may be present regarding the degree of trust that should be placed in the communication of any one of the members of the immediate group or audience.

There are small amounts of supporting evidence in the literature concerning the relationships suggested between these factors and interpersonal trust, but not enough to be convincing. Hence, the relationships should be regarded at this time as hypothetical rather than certain.

Studies of the Credibility, Ethos, or Image of a Communication Source

Scholars investigating communicator image, source credibility, ethos, or prestige have considered the factor of interpersonal trust in the communication process. Numerous studies have shown that the quality of the communicator's image affects in one way or another the receiver's acceptance of a message. An excellent summary of these studies has been provided by Andersen and Clevenger (1963). Their summary of findings regarding the influence of ethos upon attitude change on the part of listeners may be abstracted as follows: (p. 77)

> (1) Despite the great number of experimental studies, the findings "are not yet sufficiently numerous and sophisticated to permit definitive conclusions about the operation of ethical proof."
>
> (2) The finding is almost universal that "the ethos of the source is related in some way to the impact of the message." This principle applies to political, social, religious, economic, and aesthetic issues.
>
> (3) The effect of ethos tends to have a temporal dimension, that is, "when the stimulus is not renewed, material presented by a high ethos source loses in persuasiveness and that given by a poor source gains."

(4) Auditors who are neutral initially in their attitude toward the topic of the speaker's purpose "shift more often than do those who are at one extreme or the other."

(5) Expert opinion " may be about as influential as majority opinion in inducing attitude change."

(6) A congruity model "can be used to predict attitude change toward both a communicator and his topic."

(7) Printed and oral propaganda "can succeed in creating and altering images of groups or of individuals, but attempts to produce unfavorable reactions to individuals may backfire."

(8) Speeches of introduction "probably influence the image of a speaker, but most of the evidence on this point is indirect."

The studies of the factors which influence the degree of ethos a speaker may have for a given listener do not seem to lend themselves to such a clear-cut list of conclusions. The question is this: what are the dimensions of source credibility? In other words, what variables affect the image of a speaker as it is perceived by a listener? It is believed that an answer to this question will provide insight into the factors which influence interpersonal trust in small group communication.

In his Rhetoric, Aristotle contended that ethos, the estimation of a speaker by a listener, is based upon the listener's perception of three characteristics of the speaker. These were: intelligence (correctness of opinions), character (honesty), and good will (a favorable attitude toward the hearer or audience). (Cooper, 1932, p. 92)

Hovland and his associates (1953) analyzed the factors leading to perceived credibility of the communicator under two headings:

> (1) the extent to which a communicator is perceived to be a source of valid assertions (expertness), and
>
> (2) the degree of confidence in the communicator's intent to communicate the assertions he considers most valid (trustworthiness).   (p. 21)

Aristotle's factors of character and good will are apparently combined under the single concept of perceived intent to be a reliable communicator in Hovland's paradigm.

Hovland and his associates (1953) suggested that certain characteristics of the speaker may influence the receiver's perception of the communicator's expertness and intentions. They contended (p. 22) that perceived expertness may be influenced by: (1) age, (2) position of leadership, and (3) similarity to the receiver regarding status, values, interests, and needs. They also suggested (pp. 23-25) that perceived intentions may be influenced by: (1) attempts to persuade others, leading to the inference that the speaker has something to gain (for example, advertising and sales "pitches" compared to newscasts), and (2) attempts to manipulate the listener, that is, attempts obviously designed to "persuade" him rather than simply to "inform" him.

Several variables, studied singly or in very small combinations, have been shown to have an effect, in one way or another, upon a speaker's ethos or credibility.

The effect of a series of newspaper editorials upon the image of an unknown source was studied by Annis and Meier (1934). As few as seven editorials generated the desired "image."

A study of the effect of a dramatic allegory, "The Investigator," a severely satirical radio drama about Joseph McCarthy, brought surprising results reported by Berlo and Kumata (1956). The ethos of Senator McCarthy was more favorable, and attitudes toward the source of the broadcast (The Canadian Broadcasting Company) became less favorable. Such a "boomerang" effect can result from an attempt to lower the ethos of an individual.

The effect of an "introduction by a person presenting a speaker to an audience has been studied by Pross (1942) and by Kersten (1958) with unimpressive results. A later study by Andersen (1961) demonstrated that three introductions of a speaker designed to establish varying levels of ethos provided speakers on "the farm problem" significantly different measures of ethos as perceived by student audiences; these differences were demonstrated on the evaluative and the dynamism dimensions of a semantic differential scale and also on a Likert-type scale of authoritativeness. Similar results were reported by McCroskey (1966) using Likert-type scales of authoritativeness and character (p. 68) and semantic differential scales (p. 69); the authoritativeness involved was related to "problems of education." King (1966) produced significant differences in audience judgments of ethos of the same speaker as reflected on both the evaluative and the dynamism dimensions of the semantic differential scales of ethos developed by Andersen (1961); King accomplished these results by using two different introductions for the same speaker,

one describing the speaker as a sophomore English major inexperienced with the subject area of the speech (teaching machines and programmed learning), and the other describing the speaker as Dr. Robert E. Rayburn, a professor at Princeton University, a pioneer in the development of teaching machines and learning programs, listed in Who's Who in America, well known for work in both education and experimental psychology, and the author of four books in psychology and programmed learning (fictitious titles were given). It appears from these studies that an introduction for a speaker can make a measurable difference in his ethos, but that the material employed must be extensive and impressive.

Another variable presumed to affect ethos of a speaker is the use of cited authority in support of materials contained in a speech. Studies by Cole (1954), Gilkinson, Paulson and Sikkink (1954), and Sikkink (1956) reported that citation of authority did not increase persuasiveness. Cathcart (1955) found that: (1) arguments supported by authority without documentation, (2) use of authority with documentation, and (3) specification of the expertness of the authority all produced significantly greater shifts of opinion than did the same arguments presented without these forms of support. Cathcart also measured differences in perceived ethos of the speaker, but could find no significant differences in audience evaluation of the speaker's competence, enthusiasm, or clarity of ideas. Perhaps these forms of support influence the audience perception of an ethos dimension not measured by Cathcart, or perhaps the audience did not view these forms of support as related to the ethos of the speaker. A similar study by Ludlum (1956) prepared a

speech containing (1) acknowledgment of opposing arguments, (2) "leading thoughts rather than forcing," (3) a showing of alleged facts to be consistent with known facts, (4) a showing of material to be recent, and (5) the use of a number of self-praising statements. Ludlum compared the persuasiveness of this speech with one employing "straight argumentative address," and found the latter more persuasive. He did not measure perceived ethos of the speaker in either case.

In two related experiments McCroskey (1966) compared the effect of two different speeches on audience-perceived <u>authoritativeness</u> of the speaker as measured by Likert-type scale having excellent indices of reliability. One speech made extensive use of documented evidence and the other contained no documentation nor qualification of evidence-sources. In the first experiment McCroskey found significant differences in the audience perception of the <u>authoritativeness</u> of the speakers; in the second he found no significant differences.

King (1966) produced rather impressive results by using the following techniques; he prepared two speeches as nearly alike as possible except for "ethos materials." The first speech (high "ethos material") included phrases designed to show that the speaker was a man of intelligence, good character, and good will. References were made to the speaker's experience with the subject matter of the speech, giving exact details with accuracy and precision and using extensive technical language. Statements showing confidence in himself and modest self-pride were employed in an attempt to reveal the speaker's good character. Also

included were statements expressing interest in the well-being of the audience. The second speech (low "ethos material") included statements designed to show the speaker's lack of knowledge. It included statements which were vague and employed non-technical language. Other statements revealed that the speaker lacked confidence in himself. And still other statements indicated lack of respect for his audience. King found significant differences in audience response on both the evaluative and dynamism dimensions of the semantic differential scales of ethos developed by Anderson (1961).

Several studies have shown that an audience's perception of the social status of a speaker influences their perception of the speaker's ethos. Haiman (1948) found that an audience rated graduate student speakers higher than undergraduates on (1) competence, (2) fairmindedness, (3) sincerity, and (4) likableness (actual speakers were different, but the text of the speech was the same, and other conditions were generally held constant). He also found shifts of opinion correlated positively with the competence ratings for the speakers but not correlated with ratings of the other three variables. An additional finding was that variations in ratings of likableness and physical attractiveness could be produced through changes in appearance and demeanor.

A study by Harms (1959) showed that listeners in general assign high credibility to speakers perceived as having high social status, and that they tend to identify low status speakers more readily than high. These findings are consistent with earlier findings by Allport and Cantril (193) that personality, physical characteristics, and occupation are likely to be perceived correctly by hearing a person speak.

The findings cited above tend to support the theory that nonverbal and subliminal cues influence audience perceptions of ethos. However, other studies have failed to clarify this relationship. Studies of a variety of ethos elements by Strother (1951), of "sincere" and "insincere" speakers by Hildreth (1953), and words superimposed at subliminal levels of intensity on the screening of a filmed speech by Steiner (1959) have produced unimpressive results. The question of the influence of nonverbal status cues on speaker ethos is not well answered. A little evidence does point in that direction. Likewise, some evidence points in the direction of an influential relationship between personal or physical attraction and speaker ethos. Of major importance is the finding by Andersen (1961) that audience perceptions of the ethos material contained in a speech interact with the audience's prior estimations of the ethos of the speaker.

Factor Analytical Studies of Source Credibility

Perhaps the most sophisticated approach known today to the problem of identification of all the variables influential in a behavioral system is that of factor analysis. The application of this technique to date collected by semantic differential scales has been made by several scholars.

Exploratory factor analysis studies by Tannenbaum (1953), Berlo and Kumata (1957), and Bettinghaus (1959) employed semantic differential scales to measure image of the speaker. However, these studies employed only the evaluative dimension of the semantic differential.

A second group of factor analytical studies employed bipolar scales intended to include factors of evaluation, potency, and activity identified by Osgood, Suci and Tannenbaum (1957), as well as other factors which might not be covered by these three dimensions. A detailed description and analysis of this second group of factor analytical studies and a consideration of the possible relationships of the findings contained therein to a theory of interpersonal trust was made by Giffin (1966B). The following discussion of the dimensions which seemingly cause interpersonal trust, as found in factor analytical studies of source credibility, is basically a synthesis of Giffin's earlier work.

Andersen (1961) developed new multivariate semantic differential scales by which (p. 110) "two major factors in the image of the speaker were isolated, the evaluative and dynamism factors." Andersen labeled the first factor evaluative because it was consonant with the evaluative dimension isolated previously in research by Tannenbaum (1953), Berlo and Kumata (1957), and Bettinghaus (1959). Items relative to intelligence, character and good will loaded heavily on this evaluative factor.

Scales which composed the second factor isolated by Andersen (1961) had previously appeared on both the activity and the potency factors isolated in work on other concepts by Osgood, Suci and Tannenbaum (1957); because of the way in which these scales combined to produce a heavy loading on this second factor Andersen labeled this factor dynamism.

Another attempt to establish the dimensions of source credibility by factor analysis of data collected by semantic differential

scales was conducted by Berlo and Lemert over a number of years and reported in progress by Berlo (1961) and near completion by Lemert (1963). According to Lemert (1963) the same three dominant factors emerged in each of four factor analyses; he labeled them safety, qualification and dynamism. A weaker fourth factor emerged in three of the four analyses, labeled sociability by Lemert (p. 6). The twelve bi-polar semantic differential scales, representing the three dominant dimensions, were:

(1) Safety: honest-dishonest, openminded-closedminded, safe-dangerous, objective-subjective.

(2) Qualification: trained-untrained, experience-inexperienced, informed-uninformed, educated-uneducated.

(3) Dynamism: bold-timid, colorful-dull, frank-reserved, extroverted-introverted.

A third attempt to factor analyze the dimensions of source credibility of public speakers was recently completed by Markham (1965). Three factors, one quite strong and two of moderate strength, accounted for 47.77 percent of the total variance. The first factor (p. 69) Markham labeled reliable-logical-evaluative.   This factor corresponded very closely in item similarity and size of loadings to the evaluative factor in the original Osgood, Suci and Tannenbaum (1957) study (pp. 70-71). The second factor Markham labeled (p. 70) activity.   Markham's third factor (p. 70) was labeled nice-guy.

Following the pattern established by Andersen (1961), a series of experimental studies was designed by McCroskey (1966). The literature on ethos was surveyed; thirty items were developed for a Likert-type

instrument; introductions for two hypothetical speakers were prepared, one with presumably high ethos-building descriptions of the "speaker," the other with low; responses on the Likert-type scale of fifty subjects to each of these "speaker" introductions were factor analyzed. Two factors were found, labeled by McCroskey as authoritativeness and character. McCroskey noted that these two factors were highly similar to the first two of the three factors reported earlier by Berlo (1961): competence and trustworthiness.

McCroskey (1966) noted the lack of appearance of a dynamism factor identified by Andersen (1961) and Lemert (1963). However, he indicated that he had developed no items in his Likert-type scale which seemed to be designed to uncover such a dimension.

McCroskey (1966) also reports the development of a forty-item semantic differential instrument using essentially the same procedure (p. 66) as that employed in developing the Likert-type scales. Factor analysis produced two factors again identified by McCroskey as authoritativeness and character. Making the assumption that authoritativeness and character are the constituent parts of ethos, McCroskey developed separate twenty-item Likert-type scales to measure each of these two dimensions. He noted that the importance of the "good will" factor suggested by Aristotle and the factor of "speaker intentions" suggested by Hovland had not appeared, although two items on the character scales appeared to be related to these concepts.

McCroskey also developed two new semantic differential scales, one to measure authoritativeness and another to measure character.

Summary of the Dimensions

Let us again raise the question: what has been found concerning the dimensions involved in ethos or source credibility? What factors of a speaker are perceived by a listener which influence the speaker's image in the mind of the listener? From the answer to this question we can draw inferences and formulate more defensible hypotheses concerning the variables influencing a listener's trust of a speaker.

From the studies of Hovland and his associates (1953), Andersen (1961), Lemert (1963), Markham (1965), McCroskey (1966), and King (1966) there is evidence that one of the factors influencing the receiver's perception of the credibility of a communicator is his degree of expertness (authoritativeness or intelligence). This can occur by presentation of an "introduction" of a speaker, even though the actual speaker never appears. This factor can be measured by a Likert-type scale, as demonstrated by Andersen (1961) and by McCroskey (1966), and by a semantic differential, as demonstrated specifically by McCroskey (1966).

There is also general support for the measurability of this factor by the semantic differential technique in the evaluative factor found by Andersen (1961), in the qualification factor found by Lemert (1963), and in the reliable-logic-evaluative factor found by Markham (1965).

There is evidence that a second factor influencing the receiver's perception of the credibility of a communicator is his character in terms of the value system of the receiver. Support for this statement is found in the studies reported by Andersen (1961), Lemert (1963), Markham (1965),

McCroskey (1966), and less specifically by the _evaluative_ factor found by Andersen (1961), and the _safety_ factor found by Lemert (1963), and the _nice-guy_ factor identified by Markham (1965).

There is some evidence to support Aristotle's third variable,"good will," which is similar to the variable suggested by Hovland and his associates (1953, p. 21), "the speaker's intent to communicate the assertions he considers most valid." Support for this variable is found in the studies reported by Andersen (1961), Lemert (1963), and, to a limited extent in the study reported by Markham (1965). Evidence of the measurability of this factor by the semantic differential technique is not very convincing, although there certainly are traces of it in the _evaluative_ factor identified by Andersen (1961), in the _safety_ factor found by Lemert (1963), and in the relatively weak _nice-guy_ factor found by Markham (1965).

A fourth factor, labeled _dynamism_ or _activity_, was found by Andersen (1961), Lemert (1963), and by Markham (1965). Giffin (1966b) points to evidence which indicates that this factor operates with more strength in response to speakers actually giving speeches than to responses elicited by the images of well known persons or to introductions for speakers not actually presented to the respondents. Evidence of the measurability of this factor by a semantic differential was presented by Andersen (1961), by Lemert (1963), and by Markham (1965). According to all three studies this factor is related to impressions of a speaker's relative degree of activity (or the impression of something identified by the listener as activity).

In some weaker but still identifiable factors discovered
by factor analysis there is an indication of a possible influence of
personal attraction, likability or affiliation. Lemert's fourth factor
of sociability possibly involving cheerfulness and kindliness, seems to
indicate this possibility. Markham's weaker factors include scale items
supporting this inference, for example, attractive-unattractive, cheerful-
gloomy, pleasant-unpleasant, likable-unlikable, admirable-contemptible,
kind-cruel, friendly-unfriendly, and sociable-unsociable. In no sense
is this factor as strong as the others, and its measurability is not well
supported. Even so, there is enough evidence to indicate a very real
possibility of its value, and in future studies it should not be ignored.

Studies of Interpersonal Trust in Small Groups

Two behavioral scientists have studied the problem of trust:
Morton Deutsch and Jack Gibb. In each case their research has stretched
over a number of years.

Deutsch began investigating cooperation and competition in
1949 and in the mid-fifties his concern turned to interpersonal trust.
Deutsch (1958) reported that he was the first to study trust in the
laboratory. After defining trust and related terms, he (1958) turned
to a number of hypotheses centering around the factors which tend to
increase or decrease the probability of interpersonal trust. Deutsch's
first-level hypotheses asserted that: (1) as there is an increase in an
individual's confidence that his trust will be reciprocated, the
probability of his engaging in trusting behavior will increase; and (2) as

the ratio of anticipated positive to negative consequences increases,
the probability of his engaging in trusting behavior will increase.
Other hypotheses were concerned with the factors which affect the
individual's confidence that his trust will be fulfilled. These
hypotheses were related to the influence of such factors as intentions,
power communication, third parties, and the individual's self-esteem.

Deutsch's experiments utilized a two-person non-zero-sum game.
The game is a variation of the prisoner's dilemma and the gains or losses
incurred by each person are a function of the choices made by the two
persons.

Deutsch's subjects were college students who understood the
game. Throughout his various published accounts of the use of the game,
Deutsch has emphasized the principle noted in his 1958 paper:

> The essential psychological feature of the game is
> that there is no possibility for "rational" behavior
> in it unless the conditions for mutual trust exist. (p. 270)

The aims of Deutsch's studies were: (1) to ascertain if the
experimental conditions would elicit trust or suspicion, and (2) to study
further some of the conditions which might affect trust. These experiments
involved subjects who were led to have one of three motivational
orientations:

(1) Cooperative: each subject was led to feel that both he
and the other person were concerned with the welfare of
the other.

(2) Individualistic: each subject was led to feel that he
must only be concerned with his own welfare.

(3) <u>Competitive</u>: each subject was led to feel that he must do as he could for himself and also better than the other.

The experiments were also conducted under the following four conditions:

(1) No communication between the two persons.

(2) Communication: the subjects were allowed to communicate before choosing.

(3) Non-simultaneous: the first subject made a choice, and the choice made by him was announced to the second subject before the second subject made his choice.

(4) Reversibility: both subjects announced their choices, and either or both could change. They could continue changing as long as they desired.

In all four experimental conditions a cooperative orientation led primarily to cooperative choices, resulting in mutual gain. However, a competitive orientation led to choices primarily influenced by the specific situational conditions. Under non-simultaneous and non-communication conditions the results of the individualistic and competitive orientations were similar, whereas under communication and reversibility the individualistic and cooperative orientations were similar. (Deutsch, 1958, p. 271)

These results suggest that when communication is absent and one has to choose without knowledge of the other person's choices, a cooperative orientation will tend to produce trusting and trustworthy behavior. On the other hand, a competitive orientation will tend to result in suspecting rather than trusting behavior, even when situational factors such as communication possibilities are encouraging. In contrast to both

the cooperative and competitive orientations, which are not influenced

by situational factors to any great extent, the individualistically

oriented person is influenced greatly by situational determinants.

Deutsch (1958) also reports experimental studies of some of

the social or situational conditions under which mutual trust could

arise between subjects who originally have an individualistic orientation.

These studies were conducted by students of Deutsch: Loomis (1959),

Solomon (1960), and Farr (1957).

Loomis (1959) studied the influence of communication on

mutual trust. He employed a game similar to the one used by Deutsch.

About two hundred college students each played five trials where Player II

was always the confederate of the experimenter. The subjects were all

individualistically oriented. Ten experimental groups were selected,

half of the members "note-senders" and the other half "note-receivers."

A control group without such communication was also employed. The notes

were standardized forms which expressed expectation, intention, retaliation,

and absolution. The use of notes experimentally produced a higher degree

of perceived trust, both in the senders and the receivers. Whereas about

one-tenth of the non-communicating subjects were able to perceive trust

in the other person, two-thirds of the communicating subjects perceived

trust. The percentage of perceived trust increased as communication

increased. Finally, about eighty percent of all subjects made choices

consistent with their perception of the interpersonal relationship.

Deutsch (1958), in summarizing this research, concluded that communication

is likely to be effective to the extent that the basic features of a

cooperative interrelationship are manifested in the communication.

Deutsch outlined the basic features of a cooperative relationship as:

    (1) Expression of one's intentions.

    (2) Expression of one's expectations.

    (3) Expression of one's planned reaction to violation of one's expectation.

    (4) Expression of a means of restoring cooperation after a violation of one's expectation. (Deutsch, 1958, p. 275)

Solomon (1960) investigated the influence of certain types of

power relationships and motivational strategies upon the development of

trust. Game matrices for four power conditions were set up in the

experiment. One member of the dyad was a subject while the other was a

"confederate" of the experimenter. The "confederate" interacted with

the subject in one of three conditions of relative power--the confederate

in absolute power, partial power, and equal power. The confederate

employed one of three types of game strategies in each power condition--

conditional cooperation, unconditional cooperation, and non-cooperation.

Solomon's findings suggest that:

    (1) A subject is more likely to engage in trusting behavior as the amount of power he has over the trusted person is increased.

    (2) Under conditions of equal power, a subject tends to respond to unconditional cooperation by another person with exploitative game behavior, whereas he tends to cooperate more with a conditionally cooperative person.

Deutsch (1958) remarked that the results of this study indicate that an individual is more likely to trust another if he believes the other person has nothing to gain from untrustworthy behavior and if he perceives that he is able to exert some control over the other's outcome.

Farr (1957) studied the influence of a third party on interpersonal trust. The experiment was designed to determine if two individualistically oriented players in the game situation would trust each other more if they knew that they both disliked a third player. The results were that the introduction of a disliked third person significantly increased the tendency to make trusting choices.

In 1960, Deutsch (1960a) reported an investigation of trust, trustworthiness, and the F scale. Deutsch had his subjects play an interpersonal game in which they were required, in one situation, to choose between trusting and suspecting another person. In a second situation, subjects were required to choose between acting in a trustworthy manner and an untrustworthy manner. Subjects who were more trusting were more likely to be more trustworthy, indicating that behavior toward another person is congruent with what one expects from the other, and that what one expects from the other is congruent with one's behavior towards others. The F scale scores of the players correlated significantly with game behavior; subjects with low F scores tended to be trusting and trustworthy, whereas subjects with high F scores tended to be more suspicious and untrustworthy. These correlations have demonstrated a relationship between trusting and untrusting behavior and a measurable

personality dimension. These findings also support the hypothesis that individuals have general predispositions, of varying degrees, to trust or distrust others.

Evans (1964) reported the use of a two-person non-zero-sum game in an experiment concerned with the effect of unilateral promise, enforceable or unenforceable, upon cooperation and trust. The results were that subjects receiving an enforceable promise were more cooperative than subjects receiving no promise. Subjects under both promise conditions rated the promiser more trustworthy than did subjects under the no-promise condition.

From the work of Deutsch and his students, the following conclusions can be drawn concerning interpersonal trust in the communication process:

(1) A cooperative (or non-cooperative) orientation on the part of the listener will influence his tendency to trust a speaker.

(2) Communication between the speaker and listener will tend to increase the likelihood of interpersonal trust between them, expecially if the speaker and listener express their intentions and expectations regarding interpersonal trust, and indicate their plan of reacting to violations of their expectations.

(3) Increased social power over the communicator by the listener increases the likelihood of the listener trusting the communicator.

(4) A listener will tend to trust a speaker if he knows they both dislike a specified third person.

(5) Trusting listeners probably have identifiable personality

factors similar to those persons who produce high scores

on the F scale.

Jack Gibb's (1962a) long-range research efforts have emphasized

the reduction of defensive behavior in groups.   This defensive behavior

seemed to be caused partly by distrust.   In later work Gibb (1961) began to

focus on trust and its development.   His approach follows developmental

lines frequently associated with the clinic more than found in the

laboratory.   Basically, Gibb (1964) has presented a theoretical formulation

of the relationships between trust and primary dimensions of group

development.

Gibb (1964) reported that his research on (p. 280) "a wide

variety of groups in various life settings" indicated that people are

concerned about four basic goals which are inevitably derived from all

social interaction.   These "concerns" generate forces presumed helpful

in their reduction; relationships between these primary concerns, derivative

concerns, and their symptoms are outlined in Table 1 on the following page.

TABLE I

MODAL CONCERNS IN GROUP DEVELOPMENT *

Primary Modal Concerns	Derivative Modal Concerns	Symptoms of Unresolved Concern	Symptoms of Resolved Concern
Acceptance	Membership	Fear Distrust	Acceptance Trust
Data	Decision	Polite facade Caution strategy	Spontaneity Process feedback
Goal	Productivity	Apathy Competition	Creative work or play
Control	Organization	Dependency Counterdependency	Interdependence Role distribution

* From Gibb (1964, p. 281)

The acceptance concern according to Gibb (1964) is related to

the formation of trust and acceptance of self and others (p. 280). Trust

of self and others is facilitated by a supportive climate or climate of

trust. Gibb's theory of group development, reflected in Table II, was

derived from analysis of tape recordings of a large number of human relations

training groups (T-Groups). Gibb's approach allowed the identification

of early, "persuasive" attempts on the part of group members. These

persuasive attempts are outlined in Table III. Here fear and distrusting

behavior are shown to produce a reaction in the group of cynicism and

suspicion.

TABLE II

DIMENSIONS IN GROUP AND PERSONAL GROWTH *

Primary Modal Concerns	Derivative Modal Concerns	Signs of Personal Growth	Signs of Group Growth
Acceptance	Membership	Acceptance of Self and Others	Supportive climate, climate of trust
Data	Decision	Spontaneity, awareness	Reality communication, functional feedback
Goal	Productivity	Integration, directionality	Goal integration, tractability level
Control	Organization	Interdependence	Interdependence, participative action and structure

* From Gibb (1964, p. 288)

TABLE III

EARLY, "PERSUASIVE" TECHNOLOGIES IN GROUPS *

Modal Concern	Entry Behavior	Reaction in group
Acceptance (Membership)	Fear Distrust	Facade building Cynicism, suspicion
Data (Decision)	Strategy Facade	Circumvention Distortion
Goal (Productivity)	Manipulation Persuasion	Apathy, flight Suspicion, cynicism
Control (Organization)	Control Bargaining	Dependency Hostility

* From Gibb (1964, p. 294)

At a later time, "participative" behavior, involving confidence and trust, produce reactions from the group identified in Table IV as trust, diversity, and exploitation of opportunities to achieve group progress.

TABLE IV

LATER, "PARTICIPATIVE" TECHNOLOGIES IN GROUPS *

Modal Concern	Entry Behavior	Reaction in Group
Acceptance (Membership)	Confidence Trust	Trust Diversity, exploitation
Data (Decision)	Openness Spontaneity	Feedback, exposure Consensus potential
Goal (Productivity)	Self-assessment Problem solving	Ego strength Creativity
Control (Organization)	Permissiveness Interdependence	Participative form Participative function

* From Gibb (1964, p. 294)

Table V and Table VI indicate in more detail the relationship between the acceptance concern, reactions to persuasive technologies, and reactions to participative technologies. These tables sketch Gibb's theory of personal and group growth development.

Inferences from Gibb's work for a theory of interpersonal trust are easy to make: interpersonal trust is facilitated by communication which is perceived as descriptive rather than evaluative, oriented toward problems instead of interpersonal control, spontaneous rather than strategic, empathic rather than neutral, indicative of an attitude of equality instead of superiority, and expressive of provisionally held viewpoints rather than dogmatic certainties.

TABLE V

REACTIONS TO PERSUASIVE TECHNOLOGIES *

Modal Concern	Persuasive Mode of Entry	Modal Reactions to Persuasive Technologies (Symptoms of Unresolved Concerns)
Acceptance (Membership)	Fear Distrust	Distrust and accompanying denial Fears of personal inadequacy Legalism; quibbling Resistance to initiation of action Bartering of personability; "polite behavior" Atrophy of affection Concern over inclusion! protective pairing Controls; reporting requirements Specificity of channeling and structure Conformity; rituals; restriction of range of behavior
Data (Decision)	Strategy Secrecy Communication downward	Ambiguity; maximization of projection Strategy; gimmicks, tricks Fear of the unknown Facade building; secrecy Distortion of data through channels Caution; pretense; protective phraseology False assumptions; inadequate theory Extremes in slow or rapid decision making Circumvention; grapevine behavior Deceit; dishonesty; intrapersonal disparities Increased communication downward with screening Rise of suppression skills

| Goal
(Productivity) | Manipulation
of extrinsic
motivations | Apathy, flight; withdrawal
Resistance, passive or active
Increased use of extrinsic rewards
Increased approval and status needs
Low commitment; overaspiration
Extreme of frenetic or apathetic
  work
Persuasion; advice; "helping" of
  changing others
Manipulation; coercion
Competition; rivalry; jealousy;
  favoritism
Need for structure or personal
  leaders
Displaced feelings of responsibility
Atrophy of self; loss of identity;
  stereotype
Intrapersonal conflict
"Pumping" of motivation by
  interpersonal conflict |
| Control
(Organization) | High control
Persuasion
Guidance | Chaos; disorganization; cynicism
  about control
Dependency; regressive behavior
Counterdependency; resistance to
  control
Hostility, often latent or consciously
  masked
Power struggles; fight; symbolic
  fight; debate
Bargaining; limited war
Status and power concerns
Formalization of rules and structure
Concerns about leadership
Formal job prescriptions, organiza-
  tional positioning
Allocation of work through power
  or barter |

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* From Gibb (1964) p. 295.

TABLE VI

REACTIONS TO PARTICIPATIVE TECHNOLOGIES *

Modal Concern	Participative Mode of Entry	Modal Reactions to Participative Technologies (Symptoms of Unresolved Concerns)
Acceptance (Membership)	Confidence Trust	Trust and acceptance of distrust Greater feeling of personal adequacy Acceptance of legitimate influence Positive affect towards members Diversity and nonconformity Acceptance of motives of others Easy expression of feeling and conflict Facade reduction Acceptance of idiosyncratic behavior Controls over processes, not people
Data (Decision)	Openness Spontaneity Communication, all directions	Clarity; minimization of defense Problem-solving behavior Trust; reduction of suspicion Increased feedback upward Freedom of movement outside channels Reduction of intrapersonal disparities Open expression of feeling and conflict Increased permeability of boundaries Facade reduction

Goal (Productivity)	Problem solving Freedom for self-assessment	Work Orientation Visibility of intrinsic motivations Reduction of competitive behavior Reduction of conflict Creativity in sustained work Increased involvement in tasks Reduction of apathy Reduced need for work structure Diversity of behavior and attitude Increasing congruence between work and play Reduced potency of extrinsic rewards Nonconformity High personal identity; ego strength
Control (Organization)	Permissiveness Interdependence Freedom of form	Interdependence Diversity and nonconformity Fluidity of organization Greater unpredictability of behavior Reduced latent hostility Allocation of work by consensus or ability Reduction of symbolic fight Open expression of feeling and conflict Informality Spontaneity of form Reduced concern over organization form

* From Gibb, (1964) p. 297.

Studies of Conformity

There is a series of studies which do not report work on trust as such, but very clearly study an individual's attitude change which is influenced by that individual's reliance upon or trust in the communication of the other members of the group. They are known as the studies of conformity.

The Asch (1951) study was a prototype for a large number of studies showing that an individual tends to be greatly influenced by the communication of the majority when he is in a group situation. This has been demonstrated in many experimental studies reported by Asch (1951, 1952, 1956, 1958) and by Crutchfield (1954a, 1954b, 1955, 1958, 1959a, 1959b, 1962).

The evidence from the conformity studies indicates that an individual would rather believe what he is told by the majority of his associates in spite of evidence of their lack of expertness, reliability, and good intentions.

Let us examine the available information. The studies on conformity have been summarized in such textbooks on social psychology as Krech, Crutchfield and Ballachey (1962) and Homans (1961). Research on conformity and group cohesiveness has been summarized by Golembiewski (1962) and Thibaut and Kelley (1959). Giffin (1966b, pp. 56-66) pointed to the study of trust in the communication process.

The primary question investigated in the studies on conformity is this: does the individual trust the statements of communicators in

the group more than his own perceptual senses? The conditions imposed
by this question are: (1) group opinion is contrary to his own personal
opinion, and (2) he must be made to demonstrate an opinion change.

Sherif (1935) demonstrated that when pairs of subjects
judged the "movement" of a stationary light in a dark room, the judgments
tended to converge toward each other.

Asch's (1951) approach was to assemble groups of seven to
nine college students and have them judge the relative lengths of lines
on cardboard. All but one of the students were confederates of the
experimenter who had been instructed to give uniform but incorrect
responses. This one naive student gave his judgment following most of
the others; his judgment thus appeared to him to be in opposition to a
unanimous opinion of the rest of the group.

Crutchfield's technique was to seat five subjects in individual
booths, each containing a panel of switches and lights. The switches
allowed the subject to indicate his chosen responses, and the lights
purportedly indicated the responses of each other subject in the group.
The signal lights were actually controlled by the experimenter and they
alledgedly showed the subject the responses of the other four subjects
before he made his chosen response. Of course, the experimenter could
feed incorrect and correct responses to the unsuspecting subjects.
In a typical one-hour session, fifty "group" pressure items could be
presented, with "neutral" (correct response) items interspersed. The
items varied widely in content--some involving objective fact, others

were difficult. Crutchfield ran such studies on more than 600 people,
all of them above average in intelligence, education and occupational
status.

The findings of the Asch (1951, 1952, 1956, 1958) studies
indicated a marked movement toward the majority; over one-third of all
the estimates were errors identical with or in the direction of
"distorted" estimates of the confederate majority, with virtually no
errors in the control groups. Experimental variations by Asch (1958)
indicated that a disturbance of the majority by the presence of a subject
who gave true responses markedly increased the independence of the critical
subjects. The withdrawal of this "true" partner by having him initially
respond correctly and then switch to join the confederate majority produced
a powerful and surprising effect--it restored the majority effect to full
force. The opposite condition or the late switching of a "true" partner
reduced the level of yielding to about nine percent, but did not completely
contravene the influence of the remaining confederates. In another
variation of experimental conditions, the influence of the size of the
unanimous confederate majority was explored. With the confederate
opposition reduced to one person, the erroneous influence all but
disappeared; with the opposition to one naive subject increased to three,
the majority effect appeared in full force. Further increases in the
number of confederate opponents did not significantly change the results.
In post-experimental interviews with the naive subjects Asch found that
they tended to question their own judgments, not that of the majority;
that they "longed" to agree with the majority; and that they missed the
the feeling of being a part of (belonging to) the group.

Crutchfield's (1954b, 1955, 1958, 1959b, 1962) findings are briefly summarized in Krech, Crutchfield and Ballachey. (1962, pp. 509-511) They were abstracted by Giffin (1966b, p. 59) as follows:

(1) Substantial amounts of yielding were produced despite the fact that bogus group consensus was manifestly wrong; for example, 46 percent of fifty military officers agreed that a star, actually one-third smaller than a circle, was the larger.

(2) Many individuals could be pressured into yielding on an opinion item which degraded them personally; for example, 37 percent of the military officers tested, agreed that they probably did not make a good leader.

(3) Yielding was far greater on difficult items than on easy ones.

(4) There were extremely large individual differences in amount of yielding, with some individuals giving way on almost all items, and some yielding on none.

(5) When individuals are retested privately, a significant part of the yielding disappears, but by no means all of it; for example, in a study of applicants to medical school, about 50 percent of the original group-pressure effect persisted.

The degree of conformity reported by Asch and Crutchfield has been shown to be related to a number of situational and personality factors.

Situational factors include type of issue involved, size of the group, perceived competency of the group, group unanimity, extremety of group opinion, and group cohesiveness. The evidence relating these situational factors to conformity is outlined below.

Type of Issue

Coleman, Blake and Mouton (1958) supported findings of Crutchfield that type of issue or problem is related to influence of contrary group opinion, with correlations of about .89 between degree of yielding and degree of difficulty of the item; they also found direct evidence that greater yielding on difficult items related to the degree of certainty felt by the individual concerning his own judgment. Supporting evidence was also found by Tuddenham (1957) and by Rosner (1957).

Size of Group

Group pressure is more intense the larger the unanimous majority opposing the individual up to three persons; more than three produces little further change, even if fifteen persons are included. (Asch, 1958)

Perceived Competency of the Group

The degree of competency of the opposition, as perceived by the individual is directly related to the majority influence. In one of Crutchfield's studies groups of professional mathematicians were subjected to the standard group-pressure treatment, including some items involving

mathematical logic. Some of these mathematicians were subjected to

the standard group-pressure treatment, including some items involving

mathematical logic. Some of these mathematicians conformed to a false

group consensus on wrong answers they never would have given under

ordinary circumstances. (Giffin, 1966b, p. 60)

Group Unanimity

Asch (1958) demonstrated the degree of effect of unanimity

of the opposition. When the individual has the support of one other

person, yielding is markedly lower. This finding suggests that the

great social significance of one dissident voice, loud and clear, in

strengthening the independent judgment of like-minded members of a

minority opinion.

Extremity of Group Opinion

The extremity of the opinion by the majority is a factor

influencing the degree of group-pressure of the individual. Tuddenham

(1961) found that when the distorted opinion lies well outside the range

of ordinarily acceptable judgment, yielding occurs in fewer individuals,

and to a much lesser degree.

Group Cohesiveness

According to Golembiewski (1962), "group cohesiveness" has

come to be defined in small group research as the (p. 151) "attraction of

a group for its members." The operational definition of cohesiveness

has come to mean the resultant attraction of forces exerted by the group

for a member to (1) stay in the group and (2) leave the group. These forces include personal attractiveness or unattractiveness of people in the group's tasks or activities (including resultant rewards), and prestige or loss of it associated with belonging to the group. (Giffin, 1966, p. 61)

Evidence of the influence of cohesiveness on conformity was demonstrated by Gerard (1954) and by Jackson and Saltzstein (1958). A similar influence of reference groups (groups whose behavior is admired or imitated) was found by Crutchfield (1959a); persons belonging to ethnic or racial minorities conformed highly when tested in groups where they were the only such minority member. Harvey and Consalvi (1960) discovered that the second highest status member in a small group was more conforming than either the leader or those lower in status.

Personality factors influential in an individual's conforming to group opinion have been studied primarily by Crutchfield. His findings are summarized in Krech, Crutchfield, and Ballachey (1962). Giffin (1966b, p. 62) abstracted these findings as follows:

(1) Conformists are significantly less intelligent as measured on the Concept Mastery Test developed by Terman (1956).

(2) Conformists are clearly lower in "ego-strength" and in ability to work under stress as measured on the Manifest Anxiety Scale developed by Taylor (1953).

(3) Conformists are inclined toward pronounced feelings of personal inferiority and inadequacy as measured on the Adjective Check List developed by Gough (1960).

(4) Conformists exhibit intense preoccupation with other people, as contrasted with the more self-contained, autonomous interpersonal attitudes of the independent persons.

(5) The conformists express attitudes and values of a far more conventional and moralistic nature than do the independent subjects. Support for this point was provided by Nadler (1959) who found F-scale scores correlated .48 with conformity scores measured by the Asch technique.

What explanation can be offered for the conformity behavior described above? It seems that such behavior can be explained, at least in part, by a need to validate one's perceptions of social and physical reality. It is suggested that some of the conformity exhibited by the subjects in the preceding experiments was the result of their attempts to gain a correct understanding of the world about them by checking with other people. That an individual would question his own judgment when he sees that the majority's perception of the object or issue involved contradicts his, seems quite natural. The data by Tuddenham (1957), Rosner (1957), and Coleman, Blake and Moulton (1958) showing that subjects conformed more on difficult items when they were less certain of their own judgments seems to support the contention that the individual does, in fact, use the opinions of others to gain an understanding of the world around him.

The evidence indicating that conformity behavior is related to identifiable personality factors seems to lend support, at least indirectly, to the contention that individuals maintain certain predispositions to either trust or distrust those around them: that people can be characterized as to the degree that they are "trusting" or "distrustful" individuals.

The Theory in Summary

Let us briefly summarize the major components of the theory of interpersonal trust in small-group communication. Our conceptualization attempted to explain the existence of trust in small group communication behavior by asking two basic questions. The first question was: why do individuals tend to trust or distrust each other? In answer to this question, it is suggested that:

(1) Trusting and distrusting behaviors are preceded by, and based upon, attitudes regarding the trustworthiness of other individuals.

(2) These interpersonal attitudes of trust and distrust are grounded in the individual's motivation to reduce the risk involved in either satisfying his needs or preventing their frustration.

(3) Attitudes of trust and distrust for other people are first learned during the period of babyhood.

(4) As a result of one's childhood and later experience,
individuals maintain general orientations regarding
the trustworthiness of the world. Each individual's
orientation manifests itself in the form of a general
predisposition, of a certain degree, to either trust
or distrust others.

Our second major question viewed interpersonal trust as a
dependent variable. This question was: what are the communication factors
which influence interpersonal trust, and how are these factors related?
The theory's answer to this question follows:

(1) The factors which directly influence interpersonal
trust in small group communication appear to be the
listener's perception of these characteristics of the
speaker:

(a) Expertness relevant to the topic under discussion
may be in the form of quantity of pertinent information,
degree of ability or skill, or validity of judgment.

(b) Reliability as an information source may be perceived
as dependability, predictability, or consistency.

(c) Intentions toward the trusting person may be perceived
by him as favorable.

(d) Activeness of the speaker or communication behavior
which appears to be more active than passive may be
perceived by the listener.

(e) Personal attraction of the speaker for the listener, a dimension difficult to measure, possibly non-rational or non cognitive, may be operating without conscious perception by the listener and without his knowledge of interaction with one or more of the four factors listed above.

(f) Majority opinion of the others may be present regarding the degree of trust that should be placed in the communication of any one of the members of the immediate group or audience.

(2) It is suggested that the individual is motivated to maintain a cognitive structure which correctly maps physical and social reality concerning the value of himself and others along some dimension. It is further suggested that the dimensions used by the individual to determine the trustworthiness of other people are the previously mentioned communication factors.

(3) Evidence from the conformity studies indicates that the individual's estimate of the trustworthiness of other people may be influence more by the opinion of the majority of the others present in the groups to which he belongs than any of the other communication factors.

(4) Interpersonal trust is facilitated by communication which is perceived as descriptive rather than evaluative,

oriented toward problems instead of interpersonal control, spontaneous rather than strategic, empathic rather than neutral, indicative of an attitude of equality instead of superiority, and expressive of provisionally held viewpoints rather than dogmatic certainties.

(5) A cooperative or non-cooperative orientation on the part of the listener will influence his tendency to trust a speaker.

(6) Communication between the speaker and listener will tend to increase the likelihood of interpersonal trust between them, especially if they express their intentions and expectations regarding interpersonal trust, and indicate their plan of reacting to violations of their expectations.

(7) Increased social power over the communicator by the listener increases the likelihood of the listener trusting the communicator.

(8) Trusting listeners probably have identifiable personality factors similar to those persons who produce high scores on the F scale. Evidence from conformity studies suggests that personality traits such as intelligence, ego-strength, ability to work under stress, feelings of personal inferiority and inadequacy, and the amount of preoccupation with other people, may distinguish the trusting from the distrustful listener.

CHAPTER IV

HYPOTHESES AND CONCLUSIONS

The previously outlined theory is broad and its testing
could involve several approaches using many specific hypotheses. It is
believed that with the use of ingeneous research designs several tenents
of this conceptualization can be tested. The experimental approaches
and hypotneses which are deemed by this writer to merit immediate attention
are outlined below.

The Problem of Measurement

As was indicated earlier, the only approach exclusively
developed to measure trust between individuals was explored by Deutsch
(1958) and his students, Loomis (1959) and Solomon (1960). More
recently, Rapaport (1962) and Roby and Carterette (1965) explored the
same approach. Under this paradigm, inferences about comparative degrees
of trust "in the mind of the trusting person" are made by varying the
degree of risk involved in "trusting choice" situations. Since, what
may appear to the experimenter to be a "trusting choice," may not
appear to the subject ot require any risk (or trust) at all, this writer
suggests that other measurement approaches are needed to both measure
trust independently, and to test the validity of Deutsch's "trusting
choice" technique.

It would appear that the self-descriptive inventory approach
can be useful in solving the problem of measuring trust. That Likert-type

scales and semantic differentials could measure trust independently, and that they would identify the same elements as does Deutsch's approach, is speculative. However, it does seem that the following hypotheses are in order:

> Hypothesis I: A reliable and valid instrument for the measurement of interpersonal trust can be developed by using a Likert-type scale.

> Hypothesis II: A reliable and valid instrument for the measurement of interpersonal trust can be developed by using the semantic differential.

Two University of Kansas graduate students have explored the possibilities of developing such instruments. Susan Vance Wilson (1967) investigated the use of the Likert-type scale as a tool to measure interpersonal trust. Noel White (1967) explored the use of the semantic differential as it could relate to measuring interpersonal trust.

It is believed that, only by using the two approaches together, (1) observations of "trusting choices" and (2) self-descriptive inventories, can we operationally define and measure interpersonal trust effectively.

Theoretical Hypotheses

The need-satisfaction-frustration model suggests that the trustworthiness of another person is a function of the probability that that other person will either satisfy or frustrate one's needs in the

future. This concept can be tested using hypotheses and experimental designs similar to those found in the aforementioned studies of attraction and hostility. These studies utilized status and security needs as independent variables. The following two specific hypotheses could be used to experimentally test this portion of our theory of interpersonal trust:

Hypothesis III: The greater the reduction in the threat of status loss which another person brings about, the more trustworthy this person becomes to the individual.

Hypothesis IV: The greater the reduction in the threat of security loss which another person brings about, the more trustworthy this person becomes to the individual.

The suggestion that there exists general predispositions to either trust or distrust could be investigated with the following hypotheses:

Hypothesis V: Individuals have general predispositions in measurable degrees to either trust or distrust other people.

Hypothesis VI: Different cultures and societies exhibit measurably different degrees of trust and distrust.

Portions of the cognitive-validation concept, as incorporated into our theory, could also be experimentally tested. We could use the same basic techniques described by Pepitone (1964) in his summary of studies related to the cognitive-validation theories (223). Although many hypotheses could be formulated to test this concept and its relation to interpersonal trust, it appears that the following hypothesis merits testing:

Hypothesis VII: When an individual interacts with a boastful person (a person whose estimate of his own worth exceeds a valid estimate as perceived by those around him) in a risky situation, the individual will develop an attitude of distrust toward the boastful person.

The specific factors which are believed to influence the formation of trusting or distrusting attitudes, and the relationships which are thought to exist between these factors, can also be tested experimentally. Several hypotheses seem appropriate:

Hypothesis VIII: Listeners will trust speakers who are perceived as experts on the topics under discussion more than speakers who are not thought to be experts on the topics.

Hypothesis IX: Listeners will trust speakers who are perceived as being reliable (dependable, predictable, or consistent) more than speakers who are perceived as being unreliable.

Hypothesis X: Listeners will trust speakers, perceived as having favorable intentions, more than speakers who are perceived as having unfavorable intentions.

Hypothesis XI: Listeners will trust speakers who are perceived as active more than speakers thought by listeners to be passive.

Hypothesis XII: The degree of trust a listener places in the communication of a speaker is influenced significantly by the opinion of the trustworthiness of the speaker as held by the majority of the others present.

Hypothesis XIII: The listener's attitude of the trustworthiness of a speaker is influenced more by the opinion of the majority of others present in the groups to which he belongs than by the listener's independent perception of the speaker's expertness, reliability, intentinns, activeness, or personal attraction.

Hypothesis XIV: Listeners trust speakers whose communication is perceived as descriptive more than speakers whose communication is perceived as evaluative.

Hypothesis XV: Listeners trust speakers whose communication is perceived as oriented toward problems more than speakers whose communication is perceived to be oriented toward control.

Hypothesis XVI: Listeners trust speakers whose communication is perceived as empathic more than speakers whose communication is perceived as neutral.

Hypothesis XVII: Listeners trust speakers who are perceived to be viewing the listeners with attitudes of equality more than speakers who are perceived as considering themselves to be superior to their listeners.

Hypothesis XVIII: Speakers whose communication is perceived to be expressive of provisionally held viewpoints are trusted more than are speakers whose communication is perceived to be expressive of dogmatic certainties.

Hypothesis XIX: Listeners with a cooperative orientation trust speakers more than listeners with a non-cooperative orientation.

Hypothesis XX: Interpersonal trust increases as the amount of communication between group members increases.

Hypothesis XXI: Interpersonal trust increases as the verbal expression of intentions and expectations regarding interpersonal trust and the expression of a plan of reacting to violations of expectations increases.

Hypothesis XXII: Increased social power over the communicator by the listener increases the likelihood of the listener trusting the communicator.

Conclusions and Comments

A "good theory" is said to be a clear, concise and complete description of the relationships between parts of some process, event, or object which can be identified as a whole. Such a theory is based upon all available information which is believed to be relevant.

When we have little information about a part of this unitary whole, we theorize or make a thoughtful guess. Thus, the elaboration of a "good theory" imposes order on what is known and suggests fruitful areas for investigation. It is hoped that this theory of interpersonal trust will be considered a "good theory" after a substantial amount of experimentation has been completed.

This study has drawn facts and hypothetical constructs from many related areas. The relevance of these works to the problem of interpersonal trust and communication has been assumed. That studies of aggression and hostility, source credibility, and group cohesiveness have dealt with concepts pertinent to our area of investigation is speculative.

A great deal of guesswork is included in this theory. Perhaps this is an indication of the present state of knowledge regarding interpersonal trust. A large amount of evidence must be accumulated before we can, with conviction, generalize why and how people trust and distrust each other.

I think that the most important and productive immediate contributions to the scientific investigation of interpersonal trust will be the development of sound experimental instruments for measuring trust. Without such tools, other questions are scientifically unanswerable.

The most crucial factor determining the future quantity and quality of information we will have regarding this important problem is the amount of scientific interest scholars take in interpersonal

trust and communication in coming years. Scholars involved in the early work on interpersonal trust can help generate interest in the problem by selecting important questions and by carefully planning and executing their experiments.

It is hoped that many of the hypotheses in this study will be eventually tested. Regardless of whether or not the claims put forward are substantiated, the writer will know that other scholars ascribed importance to the claims. The amount of time and attention diverted to the examination of the concepts outlined in the theory will provide a measure of the likelihood of the concepts which are thought to be important by other scholars.

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